A METHOD AND SYSTEM FOR IMAGE PROCESSING FOR AUTOMATIC ROAD SIGN RECOGNITION

Abstract of the Invention

The invention is a method and system of processing an image such as a road sign wherein the image is viewed from a host such as an automobile. The method begins with the initiating of a scan of an object to obtain an input. The input is converted to a signal before comparing the input with a set of stored inputs to determine a match. The converting step occurs via a fourier or similar transform to produce a transformed input; and, then filters the transformed input using nonlinear filtering. The stored inputs are predetermined by inputting or scanning one or more reference images. If a match is determined, the system will read a set of instructions associated with the stored reference image. However, if a match is not determined, then the scanner will continue to scan for a second or subsequent image to be subjected to the comparison step. The system itself comprises means for scanning the target image and returning the image to the system for conversion to a signal indicative of a data set and conversion means. The reference images are stored in a memory of the system which can be located within the system housing or within the host itself. In addition to the stored reference images, a set of one or more instructions can be stored with each image wherein the set of instructions is indicative of an action to be performed by the host if a match is determined between the scanned image and a stored reference image.